

1  
2  
3  
4  
5  
6  
7 **CLAIM AMENDMENTS**  
8

9 **Listing of Claims:**  
10

11 **What is claimed, is**  
12

13 1. (currently amended) A service providing device for providing a service for a user in  
14 which the service providing device provides service information for the user by means of a  
15 plurality of physical devices available to the user, the service providing device comprising:

16 an interface portion connected with a user and a physical device management portion  
17 which manages the information related to the user and the information related to the physical  
18 devices available to the user;

19 a monitoring portion for obtaining the information of the managed physical devices and/or  
20 of the users via said interface portion;

21 a negotiating portion communicating with a service provider and selecting one service  
22 type from the service types of the services provided by the service provider;

23 a service processing portion communicating with the service provider and transferring the  
24 service information of the service type to be interchanged between the user and the service  
25 provider;

26 a service information redistributing portion for receiving the service information supplied  
27 by the service provider to the user and transferred by said service processing portion, and for  
28 distributing the service information to the corresponding physical device and/or the combination  
29 of the physical devices based on the capabilities of the physical devices needed by the selected  
30 service type;

31 a controlling portion for controlling the operation of transferring information among the  
32 above-mentioned portions.

1  
2 2. (currently amended) The service providing device according to claim 1, ~~characterized in~~  
3 ~~that~~ wherein:

4 said negotiating portion is configured to determine a service type for the user, based on the  
5 available physical service information obtained from the monitoring portion and the information  
6 of the physical devices capability requirement of each of the service types provided by the  
7 service provider.  
8

9 3. (currently amended) The service providing device according to claim 2, ~~characterized in~~  
10 ~~that~~ wherein:

11 said negotiating portion is configured to further determine the service type for the user  
12 based on the user favorite information included in the user information.  
13

14 4. (currently amended) The service providing device according to claim 3, ~~characterized~~  
15 ~~in that~~ wherein:

16 said service information redistributing portion is configured to further determine for the  
17 user the physical device and/or the combination of the physical devices used for accepting the  
18 service, based on the user favorite information included in the user information.  
19

20 5. (currently amended) The service providing device according to claim 2, ~~characterized~~  
21 ~~in that~~ wherein:

22 said monitoring portion is configured to monitor whether the available physical device and  
23 the available physical device information and the user information managed by the user  
24 management portion have changed; and

25 when the change affects the current service provision, the monitoring portion notifies the  
26 negotiating portion to determine a new service type, or notifies the service information  
27 redistributing portion that it is needed to use the replacing physical device/combination of  
28 physical devices,

29 said negotiating portion determines a new service type for user based on the current  
30 available physical service information, in response to the notification of determining the new

1 service type, said service information redistributing portion determines a new physical  
2 device/combination of physical devices based on the physical device capability required by the  
3 new service type, and continues to distribute the service information to the corresponding  
4 physical device/combination of physical devices;

5 in response to the notice of using the replacing physical device, said service information  
6 redistributing portion selects a replacing physical device and continues to distribute the service  
7 information to the corresponding physical devices.

8  
9 6. (currently amended) The service providing device according to claim 2, ~~characterized~~  
10 ~~in that~~ wherein:

11 said service information redistributing portion controls the synchronization of the physical  
12 devices accepting the service.

13  
14 7. (currently amended) A service providing method for providing services for a user,  
15 wherein the service providing method provides service for the user by means of a plurality of  
16 physical devices available to the user, the service providing method comprising:

17 receiving a service request sent from a user to a service provider via a physical device, or  
18 receiving a request for providing a service to a user from a service provider;

19 obtaining the information related to the user and the information related to the physical  
20 devices available to the user;

21 selecting one service type from the service types of the services that can be provided by  
22 the service provider;

23 distributing the service information, sent from the service provider to the user, to the  
24 corresponding physical device and/or the combination of physical devices based on the physical  
25 devices capability needed by the service type.

26  
27 8. (currently amended) The service providing method according to claim 7, ~~characterized~~  
28 ~~in that~~ wherein:

29 said step of selecting a service type comprises determining a service type for the user,  
30 based on the available physical service information and the information of the physical devices

1 capability requirement of each of the service types provided by the service provider.

2  
3 9. (currently amended) The service providing method according to claim 8, ~~characterized~~  
4 ~~in that~~ wherein:

5 said step of selecting a service type comprises further determining a service type for the  
6 user based on the user favorite information included in the user information.

7  
8 10. (currently amended) The service providing method according to claim 9, ~~characterized~~  
9 ~~in that~~ wherein:

10 said service information redistributing step comprises further determining the physical  
11 device(s) to accept the service for the user, based on the user favorite information included in the  
12 user information.

13  
14 11. (currently amended) The service providing method according to claim 8, ~~characterized~~  
15 ~~in that~~ wherein:

16 monitoring whether the available physical service information and the user information  
17 have changed; and

18 when the change affects the current service provision, determining a new service type for  
19 the user or using the replacing physical device/the combination of physical devices,

20 wherein said step of determining a new service type includes determining a new service  
21 type for the user based on the new available physical device information, and continuing to  
22 distribute the service information to the corresponding physical device/the combination of  
23 physical devices based on the physical device capabilities of said new service type;

24 said step of using the replacing physical devices includes selecting the corresponding  
25 physical device/the combination of the physical devices and continuing to distribute the service  
26 information to the corresponding physical device/the combination of the physical devices.

27  
28 12. (currently amended) The service providing method according to claim 7, ~~characterized~~  
29 ~~in that~~ wherein:

30 when the device to accept the service is a combination of the physical devices, controlling

1 the synchronization among the physical devices of the combination of the physical devices.

2  
3 13. (currently amended) A sentient network generating method, the sentient network  
4 including ~~a~~ at least one user object and ~~one or more~~ at least one device ~~objects~~ object available to  
5 ~~the~~ said at least one user object, said sentient network generating method comprising:

6 receiving ~~the~~ a registration request from at least one user and building said at least one  
7 user ~~object~~ object(s) for said at least one user ~~the user(s)~~;

8 receiving the registration request from at least one device and building ~~the~~ at least one  
9 device ~~object(s)~~ object for at least one device ~~the device(s)~~;

10 associating a user object with said at least one of the device object ~~objects~~ to form ~~a~~ the  
11 sentient network.

12  
13 14. (currently amended) The sentient network generating method according to claim 13,  
14 ~~characterized in that~~ wherein:

15 said at least one user object includes at least one of: ~~the~~ the personal device identification  
16 information, ~~the~~ physiological characteristics information and ~~the~~ social connections information  
17 of the user,

18 said at least one device object includes at least: ~~the~~ basic information of ~~the~~ said at least  
19 one device, ~~the~~ on line status information of ~~the~~ said at least one device and ~~the~~ access interface  
20 information of ~~the~~ said at least one device, the basic information of said device including ~~the~~  
21 identification information of ~~the~~ said at least one device and/or ~~the~~ capability information of ~~the~~  
22 said at least one device.

23  
24 15. (currently amended) The sentient network generating method according to claim 14,  
25 ~~characterized in that~~ wherein:

26 said sentient network generating method further comprises collecting ~~the~~ static and/or  
27 dynamic environment information of a plurality of said at least one device ~~device(s)~~ and/or said  
28 at least one user user(s).

29  
30 16. The sentient network generating method according to claim 14, ~~characterized in~~

1 further comprising executing an association ~~associating~~ operation based on at least one basis  
2 taken from a group of bases consisting of:

3  
4 the personal device identification information of the user;  
5 the social connections information of the user;  
6 at least one of said personal device identification information, said physiological  
7 characteristics information and said social connections information of the user; and  
8 the environment information.  
9

10 17 - 19. (canceled)

11  
12 20. The sentient network generating method according to claim 13 ~~any one of claims~~  
13 ~~13 through 19, characterized in that~~ wherein:

14 said user object further includes the user favorite information and/or the user authorization  
15 information, and

16 further comprising executing an association ~~associating~~ based on the user favorite  
17 information and/or the user authorization information.  
18

19 21. (currently amended) The sentient network generating method according to claim 13,  
20 ~~characterized in further~~ comprising executing associating operation based on the status  
21 information of the device object(s).  
22

23 22. (currently amended) The sentient network generating method according claim 13,  
24 ~~characterized in further~~ comprising executing associating operation based on the changed user  
25 object(s) information or the changed device object(s) information.  
26

27 23. (currently amended) The sentient network generating method according to claim 15,  
28 ~~characterized in further~~ comprising collecting the user information or the device information  
29 through a wireless sensor network in which said user information or said device information are  
30 broadcast via one agent device attached to a user or a device.  
31

1           24. (currently amended) The sentient network generating method according to claim 23,  
2 ~~characterized in that:~~ wherein said agent device further receives the user information or device  
3 information broadcast from other agent devices.  
4

5           25. (currently amended) The sentient network generating method according to claim 23,  
6 ~~characterized in that~~ wherein:

7           said wireless sensor network further collects the user information or the device  
8 information broadcast by a plurality of agent devices through an information collecting device;

9           said user registration step and said device registration step further receive respectively said  
10 user information or said device information collected by said information collecting device; and

11           said environment information collecting step further receives said user information or said  
12 device information collected by said information collecting device.  
13

14           26. (currently amended) The sentient network generating method according to claim 23,  
15 ~~characterized in that~~ wherein:

16           one agent device in said wireless sensor network collects the user information or the  
17 device information broadcast by the other agent devices;

18           said user management step and said device management step receive the user information  
19 or the device information respectively from said agent device; and

20           said environment information collecting step further receives the user information or the  
21 device information from said agent device.  
22

23           27. (currently amended) A sentient network generating device for carrying out the method  
24 of ~~any preceding~~ claim 13.  
25

26           28. (currently amended) A service providing system, comprising a sentient network  
27 generating device and a service providing device built for each user, wherein the service  
28 providing device for each user provides service information for ~~the~~ said each user by utilizing at  
29 least one available physical devices determined by the sentient network generating device for the  
30 user,

1           said sentient network generating device comprising:  
2           a user management portion for receiving the registration request from at least one user, and  
3           for storing the user information;  
4           a physical device management portion for receiving the registration request from at least  
5           one device, and for storing the device information;  
6           an associating portion for associating a user with at least one of said devices to generate a  
7           sentient network;  
8           the service providing device for each user comprising:  
9           an interface portion connected to the sentient network generating device and used for  
10          receiving or transmitting the information from/to said sentient network generating device ;  
11          a monitoring portion for obtaining from the sentient network, via the interface portion, the  
12          physical device information associated by the sentient network generating device for the user;  
13          a negotiating portion communicating with a service provider and selecting one service  
14          type from the service types of the services provided by the service provider;  
15          a service processing portion communicating with the service provider and transferring the  
16          service information of the service type to be interchanged between the user and the service  
17          provider;  
18          a service information redistributing portion for receiving the service information supplied  
19          by the service provider to the user and transferred by said service processing portion, and for  
20          distributing the service information to the corresponding physical device and/or the combination  
21          of the physical devices based on the capabilities of the physical devices needed by the selected  
22          service type; and  
23          a controlling portion for controlling the operation of transferring information among the  
24          above-mentioned portions.

25  
26          29. (currently amended) A service providing method for providing services for a at least  
27          one user, comprising a sentient network generating step and a step of providing services for ~~the~~  
28          said at least one user, wherein the service providing step provides service information for ~~the~~  
29          said at least one user by utilizing at least one ~~of the available physical devices~~ device determined  
30          by the sentient network generating step for ~~the~~ said at least one user,



1        said sentient network generating step comprising:  
2        a user management step for receiving ~~the a~~ registration request from    at least one user  
3        from said at least one user and for storing ~~the~~ user information;  
4        a physical device management step for receiving the registration request from said at least  
5        one physical device and for storing ~~the~~ physical device information;  
6        an associating step for associating a user with at least one device of ~~the devices~~ said at  
7        least one device to generate a sentient network;  
8        for each said at least one user, the service providing step comprising:  
9        receiving a service request sent from ~~a~~ said at least one user to a service provider via a  
10       physical device, or receiving a request for providing a service from a service provider to ~~a~~ said at  
11       least one user;  
12       obtaining the physical devices information associated by the sentient network generating  
13       step for ~~the~~ said at least one user;  
14       selecting one service type from the service types of ~~the~~ services that can be provided by  
15       ~~the~~ service provider;  
16       distributing the service information supplied by the service provider to the user to the  
17       corresponding associated physical device and/or the combination of physical devices based on  
18       the physical devices capability needed by the service type.